REMARKS

Claims 1–70 are pending in the application.

Claims 1–70 have been rejected.

No claims have been allowed.

Claims 1, 7, 9, 11–15, 19, 21, 29, 33, 35, 43, 47, 49, 57, 61 and 63 have been amended, as set forth herein.

Claims 7, 21, 35, 49 and 63 were amended solely to correct grammatical errors therein.

Claims 9 and 11–14 were amended solely for clarity.

Reconsideration of the claims is respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 102

Claim 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,708, 778 to *Monot*. The rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Claim 1 recites determining configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device. Such a feature is not shown or suggested by the cited reference. *Monot* teaches a method of autoconfiguration of a computer terminal within a network in which the parameters for the terminal are determined by interatively probing the network's carrier equipment starting with an initial set of parameters and utilizing any probe responses until the parameter set is narrowed to a set of correct parameters. The probe, however, does not involve detecting configuration information for the network, only the parameters which should be used by the terminal to operate with the network.

Accordingly, the Applicant respectfully requests the Examiner withdraw the § 102 rejection of Claim 1.

II. REJECTION UNDER 35 U.S.C. § 103

Claims 1–6, 15–20, 29–34 and 43–48 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,838,907 to *Hansen* in view of U.S. Patent No. 6,012,088 to *Li et al.* Claims 7–14, 21–28, 35–42 and 49–56 were rejected under 35 U.S.C. § 103 as being unpatentable over *Hansen* in view of *Li et al* and further in view of U.S. Patent No. 6,286,038 to *Reichmeyer et al.* Claims 57–62 were rejected under 35 U.S.C. § 103 as being unpatentable over *Hansen* in view of *Li et al* and further in view of *Monot.* Claims 63–70 were rejected under 35

U.S.C. § 103 as being unpatentable over *Hansen* in view of *Li et al* and *Monot* and further in view of *Reichmeyer et al.* These rejections are respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

Claims 1, 15, 29, 43, 57 and 61 each recite determining configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device. Such a feature is not shown or suggested by the references cited as the basis for rejection of those claims, taken alone or in combination. *Hansen*, cited as teaching a configuration determination module determining configuration attributes for operably connecting the network device/autoconfiguring router to the subnet, only teaches a guided configuration process employing requests to the network administrator for configuration information. *Hansen* does not teach or suggest employing configuration information for a subnet detected by a device to determine configuration attributes for operably connecting the device to that subnet.

Claims 5, 19, 33, 47 and 61 each recite that an IP subnet mask is determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the network device/autoconfiguring router at interfaces between the network device/autoconfiguring router and the subnet. Such a feature is not shown or suggested by the cited references.

Claims 11, 53 and 67 each recite sending a message to the centralized configuration server containing the addresses of network neighbors on the subnet. In the present invention, addresses of

network neighbors on the subnet are detected by the newly added router and employed to determine, from a centralized configuration management database for the subnet, appropriate configuration attributes for the newly added autoconfiguring router. Such a feature is not shown or suggested by the cited references. None of the cited references teaches or suggests transmitting addresses of network neighbors to a centralized configuration server to determine appropriate configuration attributes for the sending device.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection of Claims 1–70.

III. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

AMENDMENTS WITH MARKINGS TO SHOW CHANGES MADE

Claims 1, 7, 9, 11–15, 19, 21, 29, 33, 35, 43, 47, 49, 57, 61 and 63 were amended herein as follows:

1. (twice amended) A method of configuring a first network device for connection to a communications network subnet having a second network device, the method comprising:

[non-iteratively] determining, with a configuration determination module of the first network device, configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device; and

configuring the first network device, with an autoconfiguration module of the first network device, according to the configuration attributes so that the first network device is operably connected to the subnet.

5. (amended) A method according to claim 1, wherein the configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

7. (amended) A method according to claim 1, wherein the configuration attributes comprise[s] virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

9. (amended) A method according to claim 1, wherein the step of determining configuration attributes further comprises communicating with a network centralized configuration server.

11. (amended) A method according to claim 9, wherein the step of communicating with a network centralized configuration server comprises:

sending to the centralized configuration server a message containing the addresses of network neighbors on the subnet;

searching in a configuration database of the centralized configuration server for configuration attributes relevant to the first network device; and

forwarding the configuration attributes from the configuration database to the first network device.

12. (amended) A method according to claim 1, wherein the step of determining configuration attributes further comprises communicating with the second network device.

13. (amended) A method according to claim 12, wherein the step of communicating with the second network device uses a protocol based on Internet Control Message Protocol (ICMP) or User Datagram Protocol (UDP).

14. (amended) A method according to claim 1, wherein the step of determining configuration attributes comprises analyzing routing protocol control packets detected by the first network device.

15. (twice amended) An autoconfiguring data router connected to a communications network subnet having a second network data router, the autoconfiguring data router comprising:

a configuration determination module that [non-iteratively]determines configuration attributes for operably connecting the autoconfiguring data router to the subnet based on configuration information for the subnet detected by the autoconfiguring data router; and

an autoconfiguration module that configures the autoconfiguring data router according to the configuration attributes so that the autoconfiguring data router is operably connected to the subnet.

19. (amended) An autoconfiguring data router according to claim 15, wherein the network attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the autoconfiguring data router at interfaces between the first network device and the autoconfiguring data router.

21. (amended) An autoconfiguring data router according to claim 15, wherein the configuration attributes comprise[s] virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

29. (twice amended) A computer network having at least one subnetwork, the at least one subnetwork having a plurality of data routers that communicate data packets over the network, the subnetwork including at least one autoconfiguring data router, the at least one autoconfiguring data router comprising:

a configuration determination module that [non-iteratively] determines configuration attributes for operably connecting the autoconfiguring data router to the subnet based on configuration information for the subnet detected by the autoconfiguring data router; and

an autoconfiguration module that configures the autoconfiguring data router according to the configuration attributes so that the autoconfiguring data router is operably connected to the subnet.

33. (amended) A computer network according to claim 29, wherein the network attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

35. (amended) A computer network according to claim 29, wherein the configuration attributes comprise[s] virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

43. (twice amended) A computer program product for use on a computer system for configuring a first network device for connection to a communications network subnet having a second network device, the computer program product comprising a computer-usable medium having computer-readable program code thereon, the computer readable program code including:

program code for [non-iteratively] determining configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device; and

program code for configuring the first network device according to the configuration attributes so that the first network device is operably connected to the subnet.

47. (amended) A computer program product according to claim 43, wherein the configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

49. (amended) A computer program product according to claim 43, wherein the configuration attributes comprise[s] virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

57. (twice amended) An autoconfiguring data router connected to a communications network subnet having a second network data router, the autoconfiguring data router comprising:

means for [non-iteratively] determining configuration attributes for operably connecting the autoconfiguring data router to the subnet based on configuration information for the subnet detected by the autoconfiguring data router; and

means for configuring the autoconfiguring data router according to the configuration attributes so that the autoconfiguring data router is operably connected to the subnet.

61. (amended) An autoconfiguring data router according to claim 57, wherein the configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet.

63. (amended) An autoconfiguring data router according to claim 57, wherein the configuration attributes comprise[s] virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at ***dvenglarik@davismunck.com***.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

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Daniel E. Venglarik
Registration No. 39,409

P.O. Drawer 800889
Dallas, Texas 75380
(972) 628-3621 (direct dial)
(972) 628-3600 (main number)
(972) 628-3616 (fax)
E-mail: *dvenglarik@davismunck.com*